AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method for georeferencing a raster map, comprising:

displaying a first map and a second map, the first map being a digital raster map, having a plurality of pixel locations, and the second map being a previously georeferenced map, having associated geographic coordinates, wherein the first map is similar to the second map, each pixel location includes an associated x-coordinate and y-coordinate, and each geographic coordinate includes an associated longitude coordinate and an associated latitude coordinate;

receiving an entry identifying a first point pair, wherein a first pixel location on the first map is associated with a first geographic coordinate on the second map and the first pixel location is located at a position on the first map analogous to the first geographic coordinate on the second map;

receiving an entry identifying a second point pair, wherein a second pixel location on the first map is associated with a second geographic coordinate on the second map and the second pixel location is located at a position on the first map analogous to the second geographic coordinate on the second map;

assigning to the first pixel location the longitude coordinate and the latitude coordinate associated with the first geographic coordinate;

assigning to the second pixel location the longitude coordinate and the latitude coordinate associated with the second geographic coordinate; ~~and~~

creating a mathematical georeferencing function for assigning appropriate geographic coordinates to any one of the plurality of pixel locations; and

revising the mathematical georeferencing function when a new point pair is received.

2. (Original) The method of claim 1 wherein the second map is a vector map.

3. (Original) The method of claim 1 wherein the second map is a digital raster map.

4. (Previously Presented) The method of claim 1 wherein the point on the first map has a previously determined longitude and latitude.

5. (Canceled)

6. (Previously Presented) The method of claim 1 wherein the georeferencing function is a linear transformation.

7. (Original) The method of claim 1 further comprising selectively synchronizing, responsive to a user command, the first map and the second map.

8. (Original) The method of claim 1 further comprising receiving a mark on the first map at a location, and reproducing the mark on the second map at a corresponding location.

9. (Previously Presented) The method of claim 1 wherein the georeferencing uses at least three point pairs to complete the georeferencing function for the first map based on a linear transformation.

10. (Previously Presented) The method of claim 1 further comprising using at least four point pairs to complete the georeferencing function for the first map, based on a linear transformation, and further comprising executing a validation check.

11. (Previously Presented) The method of claim 10 further comprising rejecting one of the point pairs when an error associated with the one point pair deviates a pre-determined amount from a standard error computed using the other point pairs.

12. (Previously Presented) The method of claim 11 wherein the standard error uses a "least square" parameter fitting operation.

13. (Previously Presented) The method of claim 1 further comprising:

receiving a selection of a point on the first map, and

receiving a selection of a point on the second map.

14. (Currently Amended) An apparatus for georeferencing a raster map, the apparatus comprising:

means for displaying a first map and a second map, the first map being a digital raster map, having a plurality of pixel locations, and the second map being a previously georeferenced map, having associated geographic coordinates, wherein the first map is similar to the second map, each pixel location includes an associated x-coordinate and y-coordinate, and each geographic coordinate includes an associated longitude coordinate and an associated latitude coordinate;

means for receiving an entry identifying a first point pair, wherein a first pixel location on the first map is associated with a first geographic coordinate on the second map and the first pixel location is located at a position on the first map analogous to the first geographic coordinate on the second map;

means for receiving an entry identifying a second point pair, wherein a second pixel location on the first map is associated with a second geographic coordinate on the second map and the second pixel location is located at a position on the first map analogous to the second geographic coordinate on the second map;

means for assigning to the first pixel location the longitude coordinate and the latitude coordinate associated with the first geographic coordinate;

means for assigning to the second pixel location the longitude coordinate and the latitude coordinate associated with the second geographic coordinate; ~~and~~

means for creating a mathematical georeferencing function to assign appropriate geographic coordinates to any one of the plurality of pixel locations; and

means for revising the mathematical georeferencing function when a new point pair is received.

15. (Canceled)

16. (Previously Presented) The apparatus of claim 14 further comprising means for receiving a mark on the first map at a location, and reproducing the mark on the second map at a corresponding location.

17. (Previously Presented) The apparatus of claim 14 further comprising means for using at least four point pairs to compute a georeferencing function for the first map based on a linear transformation, and further comprising executing a validation check.

18. (Previously Presented) The apparatus of claim 17 further comprising means for rejecting one of the point pairs when an error associated with the one point pair deviates a predetermined amount from a standard error computed using the other point pairs.

19. (Currently Amended) A computer readable medium containing instructions executable by a computer to perform a method to georeference a raster map, the method comprising:

displaying a first map and a second map, the first map being a digital raster map, having a plurality of pixel locations, and the second map being a previously georeferenced map, having associated geographic coordinates, wherein the first map is similar to the second map, each pixel location includes an associated x-coordinate and

y-coordinate, and each geographic coordinate includes an associated longitude coordinate and an associated latitude coordinate;

receiving an entry identifying a first point pair, wherein a first pixel location on the first map is associated with a first geographic coordinate on the second map and the first pixel location is located at a position on the first map analogous to the first geographic coordinate on the second map;

receiving an entry identifying a second point pair, wherein a second pixel location on the first map is associated with a second geographic coordinate on the second map and the second pixel location is located at a position on the first map analogous to the second geographic coordinate on the second map;

assigning to the first pixel location the longitude coordinate and the latitude coordinate associated with the first geographic coordinate;

assigning to the second pixel location the longitude coordinate and the latitude coordinate associated with the second geographic coordinate; ~~and~~

creating a mathematical georeferencing function for assigning appropriate geographic coordinates to any one of the plurality of pixel locations; and

revising the mathematical georeferencing function when a new point pair is received.

20. (Previously Presented) The computer-readable medium of claim 19 further comprising:

using at least four point pairs to compute a georeferencing function for the first map based on a linear transformation;

further comprising executing a validation check; and

rejecting one of the point pairs when an error associated with the one point pair deviates a predetermined amount from a standard error computed using the other point pairs.

21. (Currently amended) The method of claim 9, wherein ~~a polygon, formed by the outline of~~ the point pairs used by the georeferencing are widely dispersed ~~point pairs, covers a substantial portion of the first map~~ so that an accuracy of the georeferencing function is increased.

22. (New) The method of claim 21, wherein the point pairs are widely dispersed when a polygon defined by vertices chosen among the point pairs covers a substantial portion of the first map.